

## **NOAA Fisheries**

### **Proposed FY04 National Fisheries Information System Spending Plan**

#### **Purpose:**

In 1996, the Magnuson-Stevens Fishery Conservation and Management Act were reauthorized. Section 401 contained a mandate to implement a plan for a nationwide Fisheries Information System (FIS). In a 1998 report to Congress, the FIS conceptual model was defined with the integration and harmonization of fisheries data collection and management to form a virtual national system. Regional implementation in cooperation with the states, the fishery management councils and the marine fisheries commissions and a highly collaborative process with stakeholder involvement were envisioned.

During FY03 Professional Specialty Groups (PSG) were established to oversee the development of the national program and to ensure a highly collaborative process. Personnel from the six NMFS regional offices and science centers, as well as the three interstate marine fisheries commissions, are participating in the PSGs. Each PSG has prioritized tasks within ongoing work plans. Funds are to be allocated among five different PSG areas: System Design and Integration of Related Databases, Electronic Reporting / Data Collection Improvements, Reconciliation of Parallel Reports, Participant Registration Systems, and Economic Data Management.

The Fisheries Information System (FIS) provides a context for the design, development, and implementation of data collection and data management for fishery dependent statistics nationwide to improve the timeliness and accuracy of data. FIS is a portal that identifies the existing federal and state fisheries information systems or databases (data collections) and provides integrated business solutions for effective information sharing. FIS supports fisheries management decisions by developing a virtual application environment and providing integrated business solutions and data sources in web browser interface. Since the FIS is a multi-year project, not all components of FIS can be produced within FY04. At the beginning of the FIS project, the focus will be on setting up the foundation that is to complete the national metadata structure. Initially the analysis will be done on the fisheries dependent data. Once we completed the basic structure and draft out the FIS system scope, we will expand the system to fisheries independent data, and have the FIS system feed to other systems.

This spending plan addresses the requirement that all databases maintained by NOAA Fisheries and institutional partners provide a common set of descriptive metadata that can be used to develop an on-line e-Catalog of all available fisheries information. Establishment of the e-Catalog provides the necessary foundation to move forward for the national program. A national web portal application will be developed for the fisheries information system integration to support fisheries management decisions and collaboration.

#### **Criteria for Project Selections:**

FY04 President's Request

## 1998 Report to Congress: Proposed Implementation of a Fishing Vessel Registration and Fisheries Information System

Note: Priorities for FY04 and beyond are consistent with those identified in the original FIS Report to Congress, notwithstanding any elements or amounts partially or fully funded through other line items (national standard 8 compliance, observers, and socioeconomic data collections and research).

Projects that support one or more of the following were considered for funding:

- Development of a national metadata system
- Development of cross-regional applications/tools systems to support similar fishery activities
- Elimination of unnecessary duplication of effort
- Development of inter-regional or national systems
- Enhancement of existing systems and/or development of reusable components of existing systems (i.e., No re-invention of the wheel)
- Use of new technology for system development
- Development of more efficient and accurate approaches to data collection
- Development of electronic mechanisms for reporting of information
- Enhancement of information access

Projects were selected through a cooperative process involving representatives from all of the partners. Proposals were evaluated according to their ability to meet FIS objectives.

### Funding History (in thousands):

	FY03	FY04	Total Funding	Out-Years at Level Funding
<b>Total FIS Funding</b>	<b>\$2,575.0</b>	<b>\$2,548.0</b>	<b>\$5,123.0</b>	<b>\$2,548.0</b>

### Performance Measure:

NOAA Fisheries Five-Year Plan Activity/Program	Performance Metric – over 5 years
<b>Improving the information base for stewardship – Counting fish and fishermen</b> <ul style="list-style-type: none"><li>• <b>National Fisheries Information System</b></li></ul>	<b>Completion of a nationwide, web-enabled, state-federal fisheries statistics data collection program and relational data management system.</b>

The proposed FY04 activities are part of a multi-year roll out of the program. The projected total level of annual Federal funding required to satisfy the data collection, information management and institutional objectives of the FIS is estimated at \$24.48M above the current funding

appropriated to date. However, all that is available for FIS projects is \$2,548,000. Therefore, rather than develop new major projects, these funds would be used to build on and significantly expand projects initiated in FY03. Funding for several of the identified categories will be recurring once the system is implemented. However, the amount and distribution of funding will vary pending available funds and as development work in these categories transitions to operational modes, and other categories of work described in the report are initiated.

## **FY04 \$2,548K Allocation:**

- \$895K to system design and integration of related databases
- \$520K to electronic reporting and data collection improvements
- \$230K to reconciliation of parallel reporting systems
- \$150K to participant registration systems
- \$150K to economic data management
- \$603K to FIS project management

## **Actual FY04 National Fisheries Information System Spending Plan Summary After Rescission**

The following is a summary of the major activities proposed in this spending plan.

### **System Design and Integration of Related Databases**

**\$863,675**

Development of a nationwide electronic data catalog web application system, which will implement a standardized metadata system for all NMFS and institutional partner databases. The service should provide timely access to a standardized database that provides detailed information on data collection methods, database structure, data elements, and data context. Inventory and evaluate current data set and develop the FIS core dataset. Analyze how the proposed FIS system (fisheries dependent data) interfaces with the other data systems. Development of national web portal application for the FIS will provide a concept to the management and public about what is the FIS product.

### **Electronic Reporting and Other Data Collection Improvements**

**\$501,800**

Identify and evaluate existing electronic data collection for both vessel/fishermen and dealer reporting. Develop surveys of marine recreational fishing effort on Pacific coast that are based on angler license sampling frames. (Support of Pacific RecFIN.)

### **Reconciliation of Parallel Reporting Systems**

**\$221,950**

Identify and document data collection activities, both within NOAA Fisheries and those conducted by states, Commissions, or others, that collect information that is similar or identical. Investigate where possible duplication of reporting can be avoided and where data from different sources can be synthesized and/or integrated to improve the overall quality and comprehensiveness of fisheries data. Publish the data collection system inventory and analysis document on the FIS web site.

**Participant Registration Systems****\$144,750**

Vessel permit file integration. Development of policies regarding minimum requirements for permit applications. Creation of national vessel registry with detailed owner information suitable as sampling frame. Planning, requirements analysis, and development tasks with NE, SE, NW, AK, SW, PI, and Commission staff.

**Economic Data Management****\$144,750**

Identify and evaluate existing economic data collections of commercial harvesters and for-hire fleets, processors, and habitat-related economic surveys, including legacy data; and develop economic data management module(s) that comports with National/Regional FIS requirements, including automating quality control mechanisms and data integration procedures.

**FIS Program Coordination and Support****\$582,796**

FIS program coordination and contractor support of projects, and other resource management; FIS meetings, travel, resource materials; specialized computer software.

**Table 1. Proposed FY04 Fisheries Information System Spending Plan**

<b>System Design and Integration of Related Databases</b>	<b>\$863,675</b>
<i><b>Data Inventory and Data Entry</b></i>	
Nationwide Inventory of NMFS and Institutional Partner Databases	\$357,050
Development of Centralized Repository Software for Metadata Collection	\$135,100
Development of national web portal application proto type	\$241,250
<i><b>Development of Standardized Data Entry Tools</b></i>	
Development of Data Management Tools	\$77,200
Conversion of Existing PIFSC Longline Observer Software for use by the SWFSC	\$24,125
Conversion of Existing PIFSC Longline Observer Software for use by the NEFSC	\$28,950
<b>Electronic Reporting and Other Data Collection Improvements</b>	<b>\$501,800</b>
Development of Angler License Sampling Frame on Pacific Coast	\$270,200
Feasibility Study of Using Bar-Coded Fisheries Permit Cards in Alaska	\$48,250
Plan Development to Address Electronic Fish Ticket System for West Coast Fisheries	\$48,250
Completion of the NERO Deployment of SAFIS	\$135,100
<b>Reconciliation of Parallel Reporting Systems</b>	<b>\$221,950</b>
Reconcile SEFSC Logbook data with State Managed Trip Ticket Systems	\$120,625
Development of an Identity Server to Provide Unique Identifiers to Link Systems	\$101,325
<b>Participant Registration System</b>	<b>\$144,750</b>
Development of an Integrated Vessel Inventory for the Pacific Islands	\$48,250
Development of West Coast States Small Boat Registry	\$24,125
Redesign of Northeast Permit and Days-at-Sea Monitoring System	\$39,565
System Inventory of SERO Permits to Support Migration to New System	32,810
<b>Economic Data Management</b>	<b>\$144,750</b>
Design User Interface for NE Observer Cost Data	\$22,195
Develop Economics Module for Hawaii Longline Observer System	\$19,300
Integrate West Coast Process Product Data With Fish Ticket Data	\$24,125
Improve Data Management of HMS and Snapper-Grouper Logbook	\$38,600
Conduct QA/QC and Integrate BSAI/GOA Groundfish Data	\$16,405
Develop CA Nearshore Logbook Program (Includes Economic Data)	\$24,125
<b>FIS Program Coordination and Support</b>	<b>\$582,796</b>
Common Project Support	\$217,125
National and PSG Meetings, Travel, and Resource Materials	\$240,285
Specialized Software	\$124,485
<b>TOTAL FUNDING</b>	<b>\$2,459,721</b>

**Table 2. FY04 Distribution of Funds By FMC**

<b>FMC</b>	<b>Temporary</b>	<b>Permanent</b>	<b>Total Funding</b>
<b>Alaska Center</b>			
Economic Data Management	\$16,405		\$16,405
<b>Northwest Center</b>			
Data Collection Improvements (PacFIN)	\$270,200		\$270,200
<b>Northwest Region</b>			
Electronic Reporting	\$48,250		
Electronic Reporting (To PSMFC – AK)	\$48,250		
Participant Registration	\$24,125		
Economic Data Management	\$24,125		
<b>Sub-total</b>	<b>\$144,750</b>		<b>\$144,750</b>
<b>Southwest Center</b>			
System Design and Integration			
<i>Development of Entry Tools</i>	\$24,125		
Economic Data Management	\$24,125		
<b>Sub-total</b>	<b>\$48,250</b>		<b>\$48,250</b>
<b>Pacific Islands Center</b>			
System Design and Integration			
<i>Data Inventory and Data Entry</i>	\$,135,100		
<i>Development of Entry Tools</i>	\$77,200		
Economic Data Management	\$19,300		
<b>Sub-total</b>	<b>\$231,600</b>		<b>\$231,600</b>
<b>Pacific Islands Region</b>			
Participant Registration	\$48,250		\$48,250
<b>Northeast Center</b>			
System Design and Integration			
<i>Development of Entry Tools</i>	28,950		
Economic Data Management	\$22,195		
<b>Sub-total</b>	<b>\$51,145</b>		<b>\$51,145</b>
<b>Northeast Region</b>			
Electronic Reporting	\$135,100		
Reconciliation of Reporting	\$101,325		
Participant Registration	\$39,565		
<b>Sub-total</b>	<b>\$275,990</b>		<b>\$275,990</b>
<b>Southeast Center</b>			
System Design and Integration			
<i>Development of national web portal prototype</i>	\$241,250		
Reconciliation of Reporting	\$120,625		
Economic Data Management	\$38,600		
<b>Sub-total</b>	<b>\$400,475</b>		<b>\$400,475</b>
<b>Southeast Region</b>			
Participant Registration	\$32,810		\$32,810

<b>Office of Science and Technology</b>		
System Design and Integration		
<i>Data Inventory and Data Entry</i>	\$357,050*	
FIS Program Coordination and Support	\$582,796	
<b>Sub-total</b>	<b>\$939,846</b>	<b>\$939,846</b>
<b>TOTAL FUNDING</b>		<b>\$2,459,721</b>

\* These funds will be used to provide IT contractor support for Data Inventory and Data Entry work for different partners as shown in Table 3. Funds will be dispersed upon approval of project plan.

**Table 3. FY04 Planned Distribution of Spending for Contractor Support of Nationwide Inventory of NMFS and Institutional Partner Databases**

<b>Partner</b>	<b>FMC Office of Science &amp; Technology</b>	<b>After Oracle License Reduction</b>
<b>Alaska Center</b>	\$24,125	\$17,368.24
<b>Alaska Region</b>	\$24,125	\$17,368.24
<b>Northwest Center</b>	\$57,900	\$41,683.78
<b>Northwest Region</b>	\$77,200	\$55,578.38
<b>Southwest Center</b>	\$19,300	\$13,894.59
<b>Southwest Region</b>	\$9,650	\$6,947.30
<b>Pacific Islands Center</b>	\$19,300	\$13,894.59
<b>Pacific Islands Region</b>	\$9,650	\$6,947.30
<b>Northeast Center</b>	\$14,475	\$10,420.95
<b>Northeast Region</b>	\$14,475	\$10,420.95
<b>Southeast Center</b>	\$14,475	\$10,420.95
<b>Southeast Region</b>	\$14,475	\$10,420.95
<b>Atlantic States Marine Fisheries Commission</b>	\$28,950	\$20,841.89
<b>Gulf States Marine Fisheries Commission</b>	\$28,950	\$20,841.89
<b>TOTAL FUNDING</b>	<b>357,050</b>	
<b>Oracle License</b>	<b>-\$100,000</b>	
<b>TOTAL FUNDING</b>	<b>\$257,050</b>	<b>\$257,050.00</b>

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